

147 atgtcggactacgagaacgatgacgagtgctggaacgtcctggag CARD domain
M S D Y E N D D E C W N V L E
192 ggcttccgggtgacgctcacctcggtcatcgacccctcacgcac
G F R V T L T S V I D P S R I
237 acaccttacctgcggcagtgcaaggtcctgaaccctgatgatgag
T P Y L R Q C K V L N P D D E
282 gagcaggtgctcagcgaccccaacctgggtcatccgcaaaccggaaa
E Q V L S D P N L V I R K R K
327 gtgggtgtgctcctggacatcctgcagcgacccggccacaagggc
V G V L L D I L Q R T G H K G
372 tacgtggccttctcgagagcctggagctctactaccgcagctg
Y V A F L E S L E L Y Y P Q L
417 tacaagaaggtcacagggaaggagccggcccgctcttctccatg
Y K K V T G K E P A R V F S M
462 atcatcgacgctccggggagtcaggcctgactcagctgctgatg
I I D A S G E S G L T Q L L M
507 actgaggtcatgaagctgcagaagaaggtgcaggacctgaccgag
T E V M K L Q K K V Q D L T A
552 ctgctgagctccaaagatgacttcatcaaggagctgcgggtgaag
L L S S K D D F I K E L R V K
597 gacagcctgctgcgcaagcaccaggagcgtgtgcagaggctcaag FILAMENT domain
D S L L R K H Q E R V Q R L K
642 gaggagtgcgaggccggcagccgagctcaagcgctgcaaggag
E E C E A G S R E L K R C K E
687 gagaactacgacctggccatgcgctggcgaccagagtgaggag
E N Y D L A M R L A H Q S E E
732 aaggcgccgagctcatgcggaaccgtgacctgcagctggagatt
K G A A L M R N R D L Q L E I
777 gaccagctcaagcacagcctcatgaaggccgaggacgactgcaag
D Q L K H S L M K A E D D C K
822 gtggagcgcaagcacagctgaagctcaggcacgcatggagcag
V E R K H T L K L R H A M E Q
867 cggcccagccaggagctgctgtgggagctgcagcaggagaaggcc
R P S Q E L L W E L Q Q E K A
912 ctgctccaggcccggtgcaggagctggaggcctccgtccaggag
L L Q A R V Q E L E A S V Q E
957 gggaagctggacaggagcagcccctacatccaggtactggaggag
G K L D R S S P Y I Q V L E E
1002 gactggcgagcgctgcgggaccaccaggagcaggccaacacc
D W R Q A L R D H Q E Q A N T
1047 atcttctccctgcgcaaggacctccgcccaggcgaggcccgacgc
I F S L R K D L R Q G E A R R
1092 ctcgggtgcatggaggagaaggagatgttcgagctgcagtgccctg
L R C M E E K E M F E L Q C L
1137 gcactacgtaaggactccaagatgtacaaggaccgcatcgaggcc
A L R K D S K M Y K D R I E A
1182 atcctgctgcagatggaggaggtcgccattgagcgggaccagagc
I L L Q M E E V A I E R D Q S
1227 acacaaatggaggggctgtga 1247
T Q M E G L *

FIGURE 1

1 atggatgactacatggagacgctgaaggatgaagaggacgccttg CARD domain
M D D Y M E T L K D E E D A L
46 tgggagaatgtggagtgttaaccggcacatgctcagccgctatatac
W E N V E C N R H M L S R Y I
91 aaccctgccaagctcagccctacctgcgtcagtgtaaggtcatt
N P A K L T P Y L R Q C K V I
136 gatgagcaqqatgaagatgaagtgttaatgcccttatgctgcca
D E Q D E D E V L N A P M L P
181 tccaagatcaaccgagcagccgctgttgacattctacatacc
S K I N R A G R L L D I L H T
226 aaqgggcaaaagggctatgtggtctcttcttgagagccctagaattt
K G O R G Y V V P L E S L E F
271 tattaccagaactgtacaaactgtgactgggaaagagccact
Y Y P E L Y K L V T G K E P T
316 cggagattctccaccattgtggtggaggaaggccacgaggcctc
R R F S T I V V E E G H E G L
361 acgcacttctgtatgaacgaggtcatcaagctgcagcagcatg
T H F L M N E V I K L Q Q Q M ERM (ezrin) domain
406 aaqggcaaggacctgcaacgctgcgagctgctggccaggttgccg
K A K D L Q R C E L L A R L R
451 caqctggaagatgagaagaaacagatgacgctgacgcgcgtggag
Q L E D E K K Q M T L T R V E
496 ctgctaaccctccaggaagcgtactacaagatgaaggaagagccg
L L T F Q E R Y Y K M K E E R
541 qacagctacaatgacgagctggtcaaggtgaaggacgacaactac
D S Y N D E L V K V K D D N Y
586 aacttagccatgcgctacgcacagctcagtgaggagaagaacatg
N L A M R Y A Q L S E E K N M
631 qcqgtcatgaggaagccgagacctccaactcgaatcgaatcagcta
A V M R S R D L Q L E I D Q L
676 aaqccagcgttgaataaagatggaggaaggaatgtaagctggagaga
K H R L N K M E E E C K L E R
721 aatcagctctctaaaactgaagaatgacattgaaaatcggcccaag
N Q S L K L K N D I E N R P K
766 aaggagcaaggttctggaactggagcgggagaatgaaatgctgaaq
K E Q V L E L E R E N E M L K
811 accaaaaaccaggaagctgcagctccatcaccagccgggaagcgc
T K N Q E L Q S I I Q A G K R
856 agcctgccagactcagacaagccatcctggacatcttggaaacac
S L P D S D K A I L D I L E H
901 gaccgcaaggaagccctggaggaagcaggaagctggtcaacag
D R K E A L E D R Q E L V N R
946 atctacaacctgcaggaaggaagcccgccaggaaggaagctgcga
I Y N L Q E E A R Q A E E L R
991 gacaagtacctggaggaaggaaggaagcctggagctcaagtgtcga
D K Y L E E K E D L E L K C S
1036 accctgggaaaggaactgtgaaatgtacaagcaccgcatgaacag
T L G K D C E M Y K H R M N T
1081 gtcattgctcagctggaggaaggtggagcgggagcgggaccagga
V M L Q L E E V E R E R D Q G

FIGURE 2A

1126 caqgctgtgqcccttccagggacactgcacataaaqctctcaacaca
Q A V A F Q G H C I K A L N T

1171 gaqccctgccactagcaaaqggtcggaccatcggctctgtgacgcq
E P A T S K G R T I G S V I A

1216 ttaatgaagaagqcccttccactcccagatgaagctcaacacacag
L M K K A F H S R D E A Q T Q

1261 tactcgcagtgccttaatcgaaaagqacaaqtacaggaagcagatc
Y S Q C L I E K D K Y R K Q I

1306 cgcgagctggaggaagaacacgacgagatgagatcagatgggtg
R E L E E K N D E M R I E M V

1351 cggcgaggaggcctgcacgtcaacctggagagcaagctgcggcgc
R R E A C I V N L E S K L R R

1396 ctctccaaggacagcaacaacctggaccagagtctgcccaggaac
L S K D S N N L D Q S L P R N

1441 ctgccagtaaccatcatctctcaggactttggggatgccagcccc
L P V T I I S Q D F G D A S P

1486 aggaccaatgggtcaagaagctgacgattcttccacctcggaggag
R T N G Q E A D D S S T S E E

1531 tcacctgaagacagcaagtacttctgcctaccatccgccccag
S P E D S K Y F L P Y H P P Q

1576 cgcaggtgaacctgaagggtacccagctgcagagagccaaatcc
R R M N L K G I Q L Q R A K S

1621 cccatcagcctgaagcgaacatcagattttcaagccaaggggcac
P I S L K R T S D F Q A K G H

1666 gaggaagaaggcagcgacgccagccctagctcctgcggatctctg
E E E G T D A S P S S C G S L

1711 cccataccaactccttcaccaagatgcccccccgagcgcgagc
P I T N S F T K M P P R S R S

1756 agcatcatgtcaatcaccgcccagccccgggaaacgactccatc
S I M S I T A E P P G N D S I

1801 gtcagacgctacaaggaggacgcgccccatcgagcacagtcgaa
V R R Y K E D A P H R S T V E

1846 gaagacaatgacagcggcggtttgacgccttagatctggatgag
E D N D S G G F D A L D L D E

1891 ctggcagcaggggagactgtggctcagagtcctccagggtgccc
L A A G E T V A Q S P P G V P

1936 tgccagccccctctcttccagggtccccccagcctttgccagcta
C Q P P L F Q G S P S L C Q L

1981 aggctgccaaccgatgaaacgaaagatgagtggtcctccttaatg
R L P T D E T K D E W S S L M

2026 gggaagcatcagcgctaccaagtgttaaagagagatgacagtcac
G K H Q R Y Q V L K R D D S H

2071 gaacgctactccttcggaccctcctccatccactcctcctcctcc
E R Y S F G P S S I H S S S S

2116 tcccaccaatccgagggcctggatgcctacgacctggagcaggtc
S H Q S E G L D A Y D L E Q V

2161 aacctcatgttcaggaaqgtctctcttggaaaagacccttccggcct
N L M F R K F S L E R P P R P

2206 tcqgtcacctctgtgqggcacgtgcgqggcccaagqccctcqqtg
S V T S V G H V R G P G P S V

2251 cagcacacgacgctgaatggcagacgcctcacctcccagctcacc
Q H T T L N G D S L T S Q L T

2296 ctgctggggggcaacgcgcgagggagcttgcgtgcactcgggtcaa
L L G G N A R G S F V H S V K

2341 cctgqctctctgqccgaagaaqccgacctccgtgagggccaccag
P G S L A E K A G L R E G H Q

2386 ctgctgctgctagaagqctgcacatccgagggcgaagggcagatg
L L L E G C I R G E R Q S V

2431 ccgttggacacatgcaccaaagaggaagccactggaccatccag
P L D T C T K E E A H W T I Q

2476 aggtgcagcggccccctcacgctgcactacaaggtcaaccacgaa
R C S G P V T L H Y K V N H E

2521 gcccagcagaaaaatccgtgggcctgcagaatatgatgtgggcagc

PDZ domain

FIGURE 2B

A Q Q K I R G P A E Y D V G S
2566 acctccaaagccccggagctgcgagcagcacagccctgcaagtct
T S K A R S C A A A Q P C K S
2611 ggaattccagggaaagaaagttcattccggcaggggtaccggaag
G I P G K E S S F R Q G Y R K
2656 ctggtgaaggacatggaggacggcctgatcacatcgggggactcg
L V K D M E D G L I T S G D S
2701 ttctacatccggctgaacctgaacatctccagccagctggacgcc
F Y I R L N L N I S S Q L D A
2746 tgcaccatgtccctgaagtgtgacgatgttggtgcacgtccgtgac
C T M S L K C D D V V H V R D
2791 accatgtaccaggacaggcagcagtggtgtggtggtggtggtgac
T M Y Q D R H E W L C A R V D
2836 cctttcacagaccatgacctggatatgggcaccatacccagctac
P F T D H D L D M G T I P S Y
2881 agccgagcccagcagctcctcctggtgaaactgcagcgctgatg
S R A Q Q L L L V K L Q R L M
2926 caccgaggcagccggaggaggttagcggcaccacacacccctg
H R G S R E E V D G T H H T L
2971 cgggcactccggttcgtcagcaggtccgagaacaagtataagcgg
R A L R F V S R S E N K Y K R
3016 atgaacagcaacgagcgggtccgcacatctcggggagtccgcta
M N S N E R V R I I S G S P L
3061 gggagcctggccccgtcctcgctggacgccaccaagctcttgact
G S L A R S S L D A T K L L T
3106 gagaagcaggaagagctggaccctgagagcgagctgggcaagaac
E K Q E E L D P E S E L G K N
3151 ctcagcctcatccctacagcctggtacgcgcttctactgcgag
L S L I P Y S L V R A F Y C E
3196 cgccgcggccccgtgctcttcacacccaccgtgctggccaagacg
R R R P V L F T P T V L A K T
3241 ctggtgcagaggtgctcaactcgggaggtgccatggagttcacc
L V Q R L L N S G G A M E F T
3286 atctgcaagtcagatatcgtcacaagagatgagttcctcagaagg
I C K S D I V T R D E F L R R
3331 cagaagacggagaccatcatctactcccagagagaagaaccccaac
Q K T E T I I Y S R E K N P N
3376 gcgttcgaatgcacgcgccctgcccaacattgaagctgtggccgcc
A F E C I A P A N I E A V A A
3421 aagaacaagcactgcctgctggaggctgggatcggtgcacaaga
K N K H C L L E A G I G C T R
3466 gacttgatcaagtccaacatctaccccatcgctgctcttcacccg
D L I K S N I Y P I V L F I R
3511 gtgtgtgagaagaacatcaagaggttcagaaagctgctgccccga
V C E K N I K R F R K L L P R
3556 cctgagacggaggaggttcctgcgctgtgcccgtgaaggag
P E T E E E F L R V C R L K E
3601 aaggagctggaggccctgccgtgcctgtacgccacgggtggaacct
K E L E A L P C L Y A T V E P
3646 gacatgtggggcagcgtagaggagctgctccgcgttgtaaggac
D M W G S V E E L L R V V K D
3691 aagatcggcaggagcagcgcaagaccatctgggtggacgaggac
K I G E E Q R K T I W V D E D
3736 cagctgtga 3744
Q L *

FIGURE 2C

1 atggggggaactgtgccgcagggactccgcactcacggcactggac
M G E L C R R D S A L T A L D
46 gaggagacactgtgggagatgatggagagccaccgccacaggatc
E E T L W E M M E S H R H R I CARD domain

91 gtacgctgcacatctgccccagccgcctcacccttacctgcgccag
V R C I C P S R L T P Y L R Q

136 gccaaaggtgctgtgccagctggacgaggaggaggtgctgcacagc
A K V L C Q L D E E E V L H S

181 ccccggtcaccaacagcgccatgcggggccggcacttgctggat
P R L T N S A M R A G H L L D

226 ttgctgaagactcgagggaagaacggggccatcgcccttcctgga
L L K T R G K N G A I A F L E

271 agcctgaagttccacaaccctgacgtctacaccctgggtcaccggg
S L K F H N P D V Y T L V T G

316 ctgcagcctgatgttgacttcagtaacttttagcggtgagagctcc
L Q P D V D F S N F S G E S S

361 gactttgacggtttggcaggcacttctaggaacctcaggctcctg
D F D G L A G T S R N L R L L

406 gtaaccccagnn 417
V T P X

FIGURE 3

GI "10436238"

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1 msdyenddec wnvlegfrvt ltsvidpsri tpylrqckvl npddeeqvls dpnlvirkrk
61 vgvllldilqr tghkgyvafl eslelyypql ykkvtgkepa rvfsmiidas gesgltqlm
121 tevmklqkkv qdltallssk ddfikelrvk dsllrkhqer vqrlkeecae gsrelkrcke
181 enydlamrla hqseekgaal mnrndlqlei dqlkhsmlka eddckverkh tlklrhameq
241 rpsqellwel qqekallqar vqeleasvqe gkldrsspyi qvleedwrqa lrdhqeant
301 ifslrkdlrq gearrlrcme ekemfelqcl alrkdsksmyk drieaillqm eeavaierdqs
361 tqmegl

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GI "10436237"

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1 atcatcagga agtgcacagg cgtccggcgt gctcctccct ccctgcagcc ccgggcagca
61 tctcccagag gctccgcggc ccaggctcct ggtgtgtctg cagtgcaggt ggctcctgga
121 agaccctcag cctgcctgct gaggccatgt cggactacga gaacgatgac gagtgtctgga
181 acgtcctgga gggcttccgg gtgacgctca cctcggctcat cgaccctca cgcacacac
241 cttacctgag gcagtgaag gtcctgaacc ctgatgatga ggagcaggtg ctacgcagcc
301 ccaacctggt catccgcaaa cggaaagtgg gtgtgctcct ggacatcctg cagcggaccg
361 gccacaaggg ctacgtggcc ttctcgcaga gcctggagct ctactaccgc cagctgtaca
421 agaaggtcac aggcaaggag cgggcccgcg tcttctccat gatcatcgac gcgtccgggg
481 agtcaggcct gactcagctg ctgatgactg aggtcatgaa gctgcagaag aaggtgcagg
541 acctgaccgc gctgctgagc tccaaagatg acttcatcaa ggagctgcgg gtgaaggaca
601 gcctgctgag caagcaccag gagcgtgtgc agaggctcaa ggaggagtgc gaggccggca
661 gccgcgagct caagcgtgac aaggaggaga actacgacct ggccatgcgc ctggcgcacc
721 agagtgaaga gaaggcgcc gcgctcatgc ggaaccgtga cctgcagctg gagattgacc
781 agtcaagca cagcctcatg aaggccgagg acgactgcaa ggtggagcgc aagcacagc
841 tgaagctcag gcacgccatg gagcagcggc ccagccagga gctgctgtgg gagctgcagc
901 aggagaaggc cctgctccag gcccggtgc aggaagctgga ggccctccgc caggagggga
961 agctggacag gagcagcccc tacatccagg tactggagga ggactggcgg caggcgctgc
1021 gggaccacca ggagcaggcc aacaccatct tctccctgcg caaggacctc cggcaggcgc
1081 agggccgacg cctccggtgc atggaggaga aggagatgtt cgagctgcag tgctggcac
1141 tacgtaagga ctccaagatg tacaaggacc gcatcgaggc catcctgctg cagatggagg
1201 aggtcgccat tgagcgggac cagagcacac aaatggaggg gctgtgacca gcctccgcgc
1261 ccagcggtt gacgtcctcc ggagcctctg cttggagttg ggcggccggg ccgagggcc
1321 agggcaagct tggggccctc actgagggtc ggccttgtgc tgtcccgta ggccatagcc
1381 acgcgggagg agctgcacgc acagcacgcc cggggcctgc aggagaagga cgcgctgcgc
1441 aagcaggtgc gggagctggg cgagaaggcg gatgagctgc agctgcaggt gttccagtgt
1501 gaggcgcagc tactggccgt ggagggcagg ctacggcggc agcagctgga gacgtcgtc
1561 ctgagctccg acctggaaga tggctcacc aggaggtccc aggagctctc actccccag
1621 gacctggagg acaccagct ctacagacaa ggctgccttg ccggcggggg gagcccgaaa
1681 cagccctttg cagctctgca ccaggagcag gttttgcgga acccccatga cgcaggcctg
1741 agcagcgggg agccgcccga gaaggagcgg cggcgccctc aagagagttt tgagaactac
1801 cgcaggaagc gcgccctcag gaagatgcag aaaggatggc ggcaggggga ggaggaccg
1861 gagaacacca cgggcagcga caacaccgac actgagggtc cctagccgca gcagacttc
1921 ccgagccgtc gctgacttgg cctggaacga ggaatctggt gccctgaaag gccagccgg
1981 actgccggg attggggccg tttgttaagc ggcactcatt ttgcggaggc catgcgggtg
2041 ctaccacccc ccatgcacac gccatctgtg taacttcagg atctgttctg ttccaccatg
2101 taacacacaa tacatgcatg cattgtatta gtgttagaaa acacagctgc gtaataaac
2161 agcacgggtg acccgc

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FIGURE 4

CARD10X ESTs

GI"9094656"

GAGAGGCTCCGCGGCCAGGCTCCTGGTGTGTCTGCAGTGCAGGTGGCTCCTGGAAGACC
CTCAGCCTGCCTGCTGAGGCCATGTTTGACTACGAGAACGATGACGAGTGTGGAGCGTC
CTGGAGGGCTTCCGGGTGACGCTCACCTCGGTATCGACCCCTCACGCATCACACCTTAC
CTGCGGCAGTGCAAGGTCTGAACCCGATGATGAGGAGCAGGTGCTCAGCGACCCCAAC
CTGGTCATCCGCAAACGGAAAGTGGGTGTGCTCCTGGACAT

GI"7132200"

GGGACAGCCTGCTCCGCAAGCACCAAGAGCGGGTGCAGAAGATGAGGGAGGAGGGACA
GTCTAAGCAAGGAGCTGCGGAAGTGCAAGGATGAGAATACAACCTGGCAATGAGCTATG
CCAGACAGAGCGAGGAGAAGAGCAGTGCCCTCATGAAGAACAGGGACCTGCTCCTAGAGA
TTGATAGCTTGAAGCATAGCCTCATGAAGGTGAGGACGACTGCAAACTAGAGCGTAAGC
ACTCGATGAAACTGAAGCATGCCATAGAACAACGTCCGAGCCATGAAGTGATGTGGGAGA
TCCAGCAGGAGAAGGAGCTGCTTTTGGCCAAGAATCAGGAGCTGGAGAACACTCTTCAGG
TTGCCAGGGAACAGAATTGGAGACGAGTCTCTCCCATGAGACTGTGCAGAATGACTGCA
GCCAGGTGCTGGAGCGCCAGGACCTGCTGAACACCCCTGTACCACCTTCGCAAGGAGCTGC
CCCAAGCCGAGGTGCTTCGAGACAAGTTCGAGGAGTGCAGCTCAGCCCACGAGGAGCTGT
CCGAGAAGGAGCGGAGGAGGATGAAGGACTGCTTTGAGCGTTACCGCAGGAAGCGCGCC
TGCGCAGAGCGCCCGGGCCCCGAGGCCGACTGGGAGCCGAGCACGGGCAGC
GACAACACGGACACCGAGGGCAGCTAGGGGCCGGCCGAGCTTTCGAGTTTGCAGCTGGAT
CCGTCAATAAACAG

GI"5884878"

TGAACACCCTGTACCACCTTCGCAAGGAGCTGCGCCAAGCCGAGGTGCTCCGAGACAAGT
ATGCAGAGGAAAAAGAAATACTTGAACACAGTGCACATCTCTGAGGAAGGACTCCCAGA
TGTATAAAAAACGGATGGAAGCTGTCTTAGAGCAGATGGAGGAAGTGGCTTCGGAAAGAG
ACCAGGCACTGTGACCAGAGAACAGTTCTACCCACAGTACTCCAAGAACCTTGTGAGA
GGGACACTTATCGGAAGCAGATTTCGGGAGCTGGGGGAGCGATGCGATGAGCTGCAGCTGC
AGCTCTTCCAAAAGGAGGGTCAGCTACTGGCTACTGAAGCCAAGCTGAAAAGACTGCAAC
TGGAGCTGCCTGCACTGACTTCTGACCTGGATGACACTCCTCCAGAGATCCCAGGTCTTA
CTCTCATGGTCATCTAGACGAAGATCGCACCTGACTAAAAAAGACGCTGTTAAGGAAAAC
CAGCAATCAGCATGCAAGAAACATCTGACGCAGATCACCCTTCGAGGATGCACTAACCA
CAAGACTTCGAGAAGACGGAGAGATAAGGATGCTTGAGCGTACGAGTCGGCCGATCCGCG
CCCCCCTCCGCGCTCCTTCCGTGGCTCGT

FIGURE 5

CARD11X ESTs

GI"6926669"

CACGAGGGAATGTACAAGCACCGCATGAACACGGTCATGCTGCACCTGGAGGAGGTGGA
GCGGGAGCGGGACCAGGCCTTCCACTCCCGAGATGAAGCTCAGACACAGTACTCGCAGTG
CTTAATCGAAAAGGACAAGTACAGGAAGCAGATCCGCGAGCTGGAGGAGAAGAACGACGA
GATGAGGATCGAGATGGTGCGGGGAGGCCTGCATCGTCAACCTGGAGAGCAAGCTGCC
GCGCCTCTCCAAGGACAGCAACCTGGACCAGAGTCTGCCAGGAACCTGCCAGTAAC
CATCATCTCTCAGGACTTTGGGGATGCCAGC

GI"6143407"

TTTTTTTTTTTTTCTCTCCTGCCTCCTTGGCCTTCGGACTCCTGCCCGCGCGCCCG
CAGCCCCCTCCCGGCCCTGCAGCCCCCTGGGCGGGCGGCCCTCGGAGGACGGCTCCGG
GCCCCGGGGGACGGAGGGCCTGGTCGCCTGGAGGAAGCCGGAGGCCTGCGTGGAGGAGGC
GCCCCGCGCAGCTGGCTGGCGGAGCATGAGCGCCCCAGATCCCAAGCACTGCAAGTCCAG
ATGCAACGGGAGCCTGGCTCAAGGGACGACAAGATCCAGCCGAAAGTGTAGAAGTCACA
CCCCAATGGCGGGATAGCAGCCCCCTGTGTGTGAGCACCCCTCCATGCCAGGAGGAGGGCC
AGAGATGGATGACTACATGGAGACCCCTGAAGGATGAAGAGGACCCCTGTGGGACAATGT
GGAGTGTAAACCGGCACATGCTCAACCGCTATATCAACCTGCCAAGCTCACGCCCTAC

GI"2785620"

GCAGCCCCCTCCCGGCCCTGCAGCCCCCTGGCGTGCGGGCCATCGGAGGACGGCTCCGGG
CCCCGGGGGACGGAGGGCCTGGTCGCCTGGAGGAAGCCGGACGCTGCGTGGAGGAGCGC
CCCCGGTCTGGTCTGGCGGACGATGAGCGCCCCAGATCCCAAGCACTGCAAGTCCAGATG
CAACGGGAGCCTGGCTCAAGGGACGACAAGATCCAGCCGAAAGTGTAGAAGTCACACCC
CAATGGCGGGATAGCAGCCCCCTGTGTGTGATCACCCCTCCATGCCAGGAGGAGGGCCAGA
GATGGATGACTACATGGAGACGCTGAATGATGAAGAGGACGCTTGTGGGAGAATGTGGA
GTGTAACCGGCACATGCTCAGCCGCTATATCAACCC

GI"1838222"

AAAAGGAGGAGGGCCAGAGATGGATGACTACATGGAGACGCTGAAGGATGAAGAGGACGC
CTTGTGGGTGAATGTGGAGTGTAACCGGCACATGCTCAGCCGGGTCTCACGAATTCCGCT
GAGTTCTCACGAATTCCGCTGAGGTCTCACGAATTCCGCTGA

GI"6927709"

CACGACGACGGACGCCAGCCCTAGCTCCTGCGGATCTCTGCCCATCACCAACTCCTTCAC
CAAGATGCAGCCCCCGGAGCCGAGCAGCATCATGTCAATCACCGCCGAGCCCCCGGG
AAACGACTCCATCGTCAAGGAGGACGCGCCCATCGCAGCACAGTCAAGA
AGACAATGACAGCGGGCGGGTTGACGCCCTTAGATCTGGATGATGACAGTCACGAACGCTA
CTCCTTCGGACCCTCCTCCATCCACTCCTCCTCCTCCTCCACCAATCCGAGGGCCTGGA
TGCCTACGACCTGGAGCAGGTCAACCTCATGTTCAAGGAAGTTCTCTCTGGAAAGACCCCT
CCGGCCTTCGGTCACCTCTGTGGGCACGTTCCGGGCCCAAGGCCCTCGGTGCAGCAC

FIGURE 6A

GI"9720543"

TCATCCCCTACAGCCTGGTACGCGCCTTCTACTGCGAGCGCCGCCGCCGCGTGTCTTCA
CACCACCGTGTGGCCAAGACGCTGGTGCAGAGGCTGCTCAACTCGGGAGGTGCCATGG
AGTTCACCATCTGCAAGTCAGATATCGTCACAAGAGATGAGTTCCTCAGAAGGCAGAAGA
CGGAGACCATCATCTACTCCCGAGAGAAGAACCCCAACGCGTTCGAATGCATCGCCCCCTG
CCAACATCGAAGCTGTGGCCGCCAAGAACAAGCACTGCCTGCTGGAGGCTGGGATCGGCT
GCACAAGAGACTTGATCAAGTCCAACATCTACCCCATCGTGCTCTTCATCCGGGTGTGTG
AGAAGAACATCAAGAGGTTAGAAAAGCTGCTGCCCCGACCTGAGACGGAGGAGGAGTTCC
TGCGCGTGTGCCGGCTGAAGGAGAAGGAGCTGGAGGCCCTGCCGTGCTGTACGCCACGG
TGAACCTGACATGTGGGGCAGCGTAGAGGAGCTGCTCCGCGTTGTCAAGGACAAGATCG
GCGAGGAGCAGCGCAAGACCATCTGGGTGGACGAGGACCAGCTGTGAGGCGGGCGCCCTG
GCAGAGAGA

GI"9142863"

TCATCCCCTACAGCCTGGTACGCGCCTTCTACTGCGAGCGCCGCCGCCGCGTGTCTTCA
CACCACCGTGTGGCCAAGACGCTGGTGCAGAGGCTGCTCAACTCGGGAGGTGCCATGG
AGTTCACCATCTGCAAGTCAGATATCGTCACAAGAGATGAGTTCCTCAGAAGGCAGAAGA
CGGAGACCATCATCTACTCCCGAGAGAAGAACCCCAACGCGTTCGAATGCATCGCCCCCTG
CCAACATCGAAGCTGTGGCCGCCAAGAACAAGCACTGCCTGCTGGAGGCTGGGATCGGCT
GCACAAGAGACTTGATCAAGTCCAACATCTACCCCATCGTGCTCTTCATCCGGGTGTGTG
AGAAGAACATCAAGAGGTTAGAAAAGCTGCTGCCCCGACCTGAGACGGAGGAGGAGTTCC
TGCGCGTGTGCCGGCTGAAGGAGAAGGAGCTGGAGGCCCTGCCGTGCTGTACGCCACGG
CGGTGGAACCTGACATGTGGGGCAGCGTAGAGGAGCTGCTCCGCGTGTGAGGACAGACGG
CGAGAGCAGCGCAAGA

GI"1761194"

GCTCCTTCAGTTCGTCAGCAGGTCCGAGAACAAGTATAAGCGGATGAACAGCAACGAGCG
GGTCCGATCATCTCGGGGAGTCCGCTAGGAGCCTGGCCCGGTCTCGCTGGACGCCACCA
AGCTCTTGACTGAGAAGCAGGAAGAGCTGGACCCCTGAGAGCGAGCTGGGCAAGAACCTCA
GCCTCATCCCCCTACAGCCTGGTACGCGCCTTCTACTGCGAGCGCCGCCGCCGCTGTGCTCT
TCACACCCACCGTGCTGGCCAAGACGCTGGTGCAGAGGCTGCTCAACTCGGGAGGTGCCA
TGGAGTTCACCATCTGCAAGTCAGATATCGTCACAAGAGATGAGTTCCTCAGAAGGCAGA
AGACGGAGACCATCATCTACTCCCGAGAGA

GI"8151878"

AGAGACTTGATCAAGTCCAACATCTACCCCATCGTGCTCTTCATCCGGGTGTGTGAGAAG
AACATCAAGAGGTTAGAAAAGCTGCTGCCCCGGCCTGAGACGGAGGAGGAGTTCTGCGC
GTGTGCCGGCTGAAGGAGAAGGAGCTGGAGGCCCTGCCGTGCTGTACGCCACGGTGGAA
CCTGACATGTGGGGCAGCGTAGAGGAGCTGCTCCGCGTTGTCAAGGACAAGATCGGCGAG
GAGCAGCGCAAGACCATCTGGGTGGACGAGGACCAGCTGTGAGGCGGGCGCCCTGGGCAG
AGAGACTCTGTGGCGCGGGGCATCCTATGAGGCAGGCACCCTGGGCAGAGAGATGTAGTG
GGTGCGGGGGGATCCTGTGGCCCCACAGAGCTGCCCCAGCAGACGCTCCGCCCCACCCGGT
GATGGAGCCCCGGGGGACAGTCGTGCGCTGGGGAGGAGCAGGGTACAGCCCATTCCCCCA
GCCCTGGCTGACCTGGCCTAGCAGTTTTGGCCCTGCTGGCCTTAGCAGGGAGACAGGGGA
GCAAAGAACGCCAAGCCGGGAGGCCCAAGCCAGCCGGGCTCTCGAGGGGGGGCCCGGTCC
CCATTTTGGCCTTTATGAGC

FIGURE 6B

GI"2007639"

AAGAGACTTGATCAAGTCCAACATCTACCCCATCGTGCTCTNTCATCCGGGTGTGTGAGA
AGAACATCAAGAGGTTTCAGAAAGCNGCTGCCCCGGCCTGAGACGGAGGNGNAGTTCCTGC
GCGTGTGCCGGCTGAAGGNGAAGGAGCTGGAGGCCCTGCCGTGCCTGTACGCGACGGTGG
AACCTGACATGTGGGGCAGCGTAGAGGAGCTGCTCCGCGTTNTATAAGGACAAGATCGGT
GAGNAGCAGCGCAAGACCATCTNGGTAGACGAGGACCAGCTTT

GI"8042493"

GTGTACTGCCTTCTGAGGAACTCATCTCTGTGACGATATCTGACTTGCAGATGGTGAAC
CCATGGCACCTCCCGAGTTGAGCAGCCTCTGCACCAGCGTCTTGGCCAGCACGGTGGGTG
TGAAGAGCACGGGCCGGCGCTCGCAGTAGAAGGCGGTACCAGGCTGTAGGGGATGA
GGCTGAGGTTCTTGCCAGCTCGCTCT

GI"2079290"

GACTTGATCAAGTCCAACATCTACCCCATCGTGCTCTTCATCCGGGTGTGTGAGAAGAAC
ATCAAGAGGTTTCAGAAAGCTGCTGCCCCGGCCTGAGACTGGAGGAGGAGTTCCTGCGCGT
GTGCCGGCTGAAGGAGAAGGAGCTGGAGGCCCTGCGATGCCTGTACGCCACGGTGGAAAC
TGACATGTGGGG

GI"7044777"

GAAATAATAATACATTTTAAATGCAAGAGAAATCATAGCCTGGTACACACCCCTTCCCCGA
TCTGTCTGCCTGGGGATGTGTTTATGGTGAGTGTGTCCCCAGGACTGGTAGTCACCTGG
CTGTCCGGGTCCCCGCCCTACTGGCGGCAGCATGCCTGTCCCCAGCATTACATTCAACTG
CTGCTCTGGCTCTCGAGAGGCCGGCTGGCCTCNGGCCTTCCGGCTTGGCGTTCTTTGCTC
CCCTGTCTCCCTGCTAAGGCCAGCAGGGCCAAACTGCTAGGCCAGGTGAGCCAGGGCTGG
GGGAATGGGCTGTACCCTGCTCCTCCCCAGGCACGACTGTCCCCCGGGGCTCCATCACC
GGGTGGGGCGGAGCGTCTGCTGGGGCAGCTCTGTGGGCCACAGGATCCCCCGCACCCAC
TGCATCTCTCTGCCATGGTGCCTGCCTCATAGGATGCCCCGCGCCACAGAGTCTATATG
TCCAGGGCGCCCGCCTCACAGCTGGTCCCTCGTCCACCCAGATGGTCTTGCGCTGCTCCTC
GCCGATCTTGCTCTGACATCGCGGAGCAGCTCCTTTACGCTGCCCCACATGTCAGGTGC
CCCCG

FIGURE 6C

CARD 12X EST

Pawlowski et al.
P-LJ 5100

GI"10316320"

TCATGCCCAGCTCCGTCCCACCCAGCAGCCCGCAGAGAAAGGAGGCAGCTGGCACCACAC
TGGGCTTTGGAGACACTGCGGGGACTGTGGACCCACCCCTGCTGCACGGAGCTCCTGCAA
AAGCAAACCTGAGAACCTTGGGTCTCTCCAGCGCCAGCCATGGGGGAACTGTGCCGCAG
GGACTCCGCACTCACGGCACTGGACGAGGAGACACTGTGGGAGATGATGGAGAGCCACCG
CCACAGGATCGTACGCTGCATCTGCCCCAGACGACATTAACCCCTATACTGTGACGCACA
GCGCCAGAGGCTGGCTGCTGACCATGGATGGACCGAGGAGGGAGGTTGCTGCACCAGCGC
CCACGAGACATCAACAACAGACGCACACTGCGGGGCCGGGCACATAGCGTGGCCTCGCGC
TAGAAAGACATCAGAGGAGAAAGAAGCGGGGGCCCACTCGCACTACCGTGAGTAGACGC
CATGCACAGTACCACCAAACCCATGAGCGCTACTACAACCCATGGGTACCAGGGCATGA
CAGCCTGGATGCATAGACATAACAAGTAACCTCTACTAGCCAGGTCCTCATGCGAAGACC
ATCCCAAGCCTGACCCGACATGCCCTGGACATGGGGCCCACTACGCGCAGACCATGCAGC
GAGAGACGCATGACACCAGGCAACAACGCGGGCCACGAACGCGAGCGTTGCCTGCATCGA
CGGGCAGCGTTGGCCACAGACACGGAATTGCAGCGGAGCCACACGTGGCAGCCCCCTGAGG
CCCGACGACACCCGGTGACCGAAGGGGGCCATGGCAACCACGACCTGGCAGGCTTGACAC
ACCAAGCGCCATACCACGCGCGTGAAAGGGTACAGAGGCACCAACTACCCAGTGCAAGCG
CAGTTCTTGCAAGGCGATGCCAAGGGAACGGGCACGACATGACGACACCGCAGTACTCTGT
GAGGAAACCATCTTAGCAAGATGACAGCCTTGACAGGAAACAACGACACGAAGTGCCTGT
CTCGCAACGCATGACAGAAGACCTGTGCGATATAAAGTAAATGTGATACTAATAGAAAGC
AAGAAGGTTGACACTGAAAGACACACATATGAGTATAACTCGAGTATGCAACGTGAACAT
G

FIGURE 7